



General

Guideline Title

Glaucoma. In: Guidelines for preventive activities in general practice, 8th edition.

Bibliographic Source(s)

Glaucoma. In: Guidelines for preventive activities in general practice, 8th edition. East Melbourne (Australia): Royal Australian College of General Practitioners; 2012. p. 79.

Guideline Status

This is the current release of the guideline.

Recommendations

Major Recommendations

The levels of evidence (I-IV, Practice Point) and grades of recommendations (A-D) are defined at the end of the "Major Recommendations" field.

Glaucoma

The glaucomas are a group of relatively common optic neuropathies, in which there is pathological loss of retinal ganglion cells, progressive loss of sight and associated alteration in the retinal nerve fibre layer and optic nerve head.

Evidence supports screening people at higher risk for glaucoma (A). General practitioners (GPs) have an important role in identifying those at increased risk for glaucoma and referring them for testing. There is no consensus on the recommended frequency of screening for at-risk groups (National Health and Medical Research Council [NHMRC], "A guide," 2010; NHMRC, "Guidelines," 2010).

Glaucoma: Identifying Risk

Who Is at Risk?	What Should Be Done?	How Often?	References
Increased Risk <ul style="list-style-type: none">Family history of glaucoma (first-degree relatives)Caucasian and	Refer for ocular examination 5–10 years earlier than the age of onset of glaucoma in the affected relative (A).	No consensus on frequency	NHMRC, "A guide," 2010; NHMRC, "Guidelines," 2010

Who Is at Risk?	What Should Be Done?	How Often?	References
Asian patients aged ≥ 50 years • African descent aged ≥ 40 years			
Higher Risk • Patients aged ≥ 50 years with: <ul style="list-style-type: none"> • Diabetes • Myopia • Long-term steroid use • Migraine and peripheral vasospasm • Abnormal blood pressure (BP) • History of eye trauma 	Refer for examination of the optic nerve head (ophthalmoscopy), measurement of intraocular pressure (tonometry) and assessment of visual fields (perimetry).*		NHMRC, "A guide," 2010; NHMRC, "Guidelines," 2010

*This may be by ophthalmologist or optometrist.

Glaucoma: Preventive Interventions

Intervention	Technique	References
Patient education	Educate patients about glaucoma and alert them to associated risk factors, with advice to attend regular full comprehensive eye examinations.	NHMRC, "A guide," 2010; NHMRC, "Guidelines," 2010
Tonometry	Schiotz tonometry has poor sensitivity and specificity for early detection of glaucoma. Tonometry alone is an inadequate screening tool, as it overestimates the prevalence of glaucoma.	
Perimetry (visual fields)	Not advisable in general practice as only automated perimetry is sensitive for detecting loss of visual field due to glaucoma.	
Assessment of eye structure (ophthalmoscopy)	Indirect ophthalmoscopy performed with a slit lamp is the examination of choice.	NHMRC, "A guide," 2010; NHMRC, "Guidelines," 2010

Definitions:

Levels of Evidence

Level	Explanation
I	Evidence obtained from a systematic review of level II studies
II	Evidence obtained from a randomised controlled trial (RCT)
III–1	Evidence obtained from a pseudo-randomised controlled trial (i.e., alternate allocation or some other method)

Level	Explanation
III-2	Evidence obtained from a comparative study with concurrent controls: <ul style="list-style-type: none"> • Non-randomised, experimental trial • Cohort study • Case-control study • Interrupted time series with a control group
III-3	Evidence obtained from a comparative study without concurrent controls: <ul style="list-style-type: none"> • Historical control study • Two or more single arm study • Interrupted time series without a parallel control group
IV	Case series with either post-test or pre-test/post-test outcomes
Practice Point	Opinions of respected authorities, based on clinical experience, descriptive studies or reports of expert committees

Grades of Recommendations

Grade	Explanation
A	Body of evidence can be trusted to guide practice
B	Body of evidence can be trusted to guide practice in most situations
C	Body of evidence provides some support for recommendation(s) but care should be taken in its application
D	Body of evidence is weak and recommendation must be applied with caution

Clinical Algorithm(s)

None provided

Scope

Disease/Condition(s)

Glaucoma

Guideline Category

Counseling

Prevention

Risk Assessment

Screening

Clinical Specialty

Family Practice

Geriatrics

Ophthalmology

Optometry

Preventive Medicine

Intended Users

Advanced Practice Nurses

Optometrists

Physician Assistants

Physicians

Guideline Objective(s)

- To facilitate evidence-based preventive activities for glaucoma in primary care
- To provide a comprehensive and concise set of recommendations for patients in general practice with additional information about tailoring risk and need
- To provide the evidence base for which primary healthcare resources can be used efficiently and effectively while providing a rational basis to ensure the best use of time and resources in general practice

Target Population

- Caucasian and Asian patients aged ≥ 50 years living in Australia
- African-descent patients aged ≥ 40 years living in Australia

Interventions and Practices Considered

1. Assessment of risk for glaucoma
2. Referral for ocular examination
3. Educating patients about glaucoma and its risk factors
4. Optic nerve head examination (ophthalmoscopy)
5. Measurement of intraocular pressure (tonometry)
6. Assessment of visual fields (perimetry)

Major Outcomes Considered

- Risk for glaucoma
- Sensitivity and specificity of screening tests for glaucoma

Methodology

Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Hand-searches of Published Literature (Secondary Sources)

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

Sources of Recommendations

The recommendations in these guidelines are based on current, evidence-based guidelines for preventive activities. The Taskforce focused on those most relevant to Australian general practice. Usually this means that the recommendations are based on Australian guidelines such as those endorsed by the National Health and Medical Research Council (NHMRC).

In cases where these are not available or recent, other Australian sources have been used, such as guidelines from the Heart Foundation, Canadian or United States preventive guidelines, or the results of systematic reviews. References to support these recommendations are listed. However, particular references may relate to only part of the recommendation (e.g., only relating to one of the high-risk groups listed) and other references in the section may have been considered in formulating the overall recommendation.

Number of Source Documents

Not stated

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Levels of Evidence

Level	Explanation
I	Evidence obtained from a systematic review of level II studies
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III–2	Evidence obtained from a comparative study with concurrent controls: <ul style="list-style-type: none">• Non-randomised, experimental trial• Cohort study• Case-control study• Interrupted time series with a control group
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Practice Point	Opinions of respected authorities, based on clinical experience, descriptive studies or reports of expert committees

Methods Used to Analyze the Evidence

Systematic Review

Description of the Methods Used to Analyze the Evidence

Not stated

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

These *Guidelines for preventive activities in general practice*, 8th edition, have been developed by a taskforce of general practitioners (GPs) and experts to ensure that the content is the most valuable and useful for GPs and their teams. The guidelines provide an easy, practical and succinct resource. The content broadly conforms to the highest evidence-based standards according to the principles underlying the Appraisal of Guidelines Research and Evaluation.

The dimensions addressed are:

- Scope and purpose
- Clarity of presentation
- Rigour of development
- Stakeholder involvement
- Applicability
- Editorial independence

The Red Book maintains developmental rigour, editorial independence, relevance and applicability to general practice.

Screening Principles

The World Health Organization (WHO) has produced guidelines for the effectiveness of screening programs. The Taskforce has kept these and the United Kingdom National Health Services' guidelines in mind in the development of recommendations about screening and preventive care.

Rating Scheme for the Strength of the Recommendations

Grades of Recommendations

Grade	Explanation
A	Body of evidence can be trusted to guide practice
B	Body of evidence can be trusted to guide practice in most situations
C	Body of evidence provides some support for recommendation(s) but care should be taken in its application
D	Body of evidence is weak and recommendation must be applied with caution

Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

Method of Guideline Validation

Peer Review

Description of Method of Guideline Validation

Not stated

Evidence Supporting the Recommendations

References Supporting the Recommendations

National Health and Medical Research Council (NHMRC). A guide to glaucoma for primary health care providers - a companion document to NHMRC guidelines for the screening, prognosis, diagnosis, management and prevention of glaucoma. Canberra: National Health and Medical Research Council (NHMRC); 2010.

National Health and Medical Research Council (NHMRC). NHMRC guidelines for the screening, prognosis, diagnosis, management and prevention of glaucoma 2010. Canberra (Australia): National Health and Medical Research Council (NHMRC), Commonwealth of Australia; 2010. 181 p.

Type of Evidence Supporting the Recommendations

The type of supporting evidence is identified and graded for selected recommendations (see the "Major Recommendations" field).

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

Appropriate screening and examination of patients at high risk for glaucoma

Potential Harms

Not stated

Qualifying Statements

Qualifying Statements

- The information set out in this publication is current at the date of first publication and is intended for use as a guide of a general nature only and may or may not be relevant to particular patients or circumstances. Nor is this publication exhaustive of the subject matter. Persons implementing any recommendations contained in this publication must exercise their own independent skill or judgement or seek appropriate professional advice relevant to their own particular circumstances when so doing. Compliance with any recommendations cannot of itself guarantee discharge of the duty of care owed to patients and others coming into contact with the health professional and the premises from which the health professional operates.
- Whilst the text is directed to health professionals possessing appropriate qualifications and skills in ascertaining and discharging their professional (including legal) duties, it is not to be regarded as clinical advice and, in particular, is no substitute for a full examination and consideration of medical history in reaching a diagnosis and treatment based on accepted clinical practices.
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- These guidelines have not included detailed information on the management of risk factors or early disease (e.g., what medications to use in

treating hypertension). Similarly, they have not made recommendations about tertiary prevention (preventing complications in those with established disease). Also, information about prevention of infectious diseases has been limited largely to immunisation and some sexually transmitted infections (STIs).

Implementation of the Guideline

Description of Implementation Strategy

For preventive care to be most effective, it needs to be planned, implemented and evaluated. Planning and engaging in preventive health is increasingly expected by patients. The Royal Australian College of General Practitioners (RACGP) thus provides the Red Book and *National guide to inform evidence-based guidelines*, and the Green Book (see the "Availability of Companion Documents" field) to assist in development of programs of implementation. The RACGP is planning to introduce a small set of voluntary clinical indicators to enable practices to monitor their preventive activities.

Implementation Tools

Chart Documentation/Checklists/Forms

Resources

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Staying Healthy

IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

Bibliographic Source(s)

Glaucoma. In: Guidelines for preventive activities in general practice, 8th edition. East Melbourne (Australia): Royal Australian College of General Practitioners; 2012. p. 79.

Adaptation

This guideline has been partially adapted from Australian, Canadian, United Kingdom, and/or United States preventive guidelines.

Date Released

2012

Guideline Developer(s)

Royal Australian College of General Practitioners - Professional Association

Source(s) of Funding

Royal Australian College of General Practitioners

Guideline Committee

Red Book Taskforce

Composition of Group That Authored the Guideline

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Financial Disclosures/Conflicts of Interest

Not stated

Guideline Status

This is the current release of the guideline.

Guideline Availability

Electronic copies: Available in Portable Document Format (PDF) from the [Royal Australian College of General Practitioners \(RACGP\) Web site](#)

Availability of Companion Documents

The following are available:

- Preventive activities over the lifecycle – adults. Preventive activities over the lifecycle – children. Electronic copies: Available in Portable Document Format (PDF) from the [Royal Australian College of General Practitioners \(RACGP\) Web site](#) .
- Putting prevention into practice (green book). East Melbourne (Australia): Royal Australian College of General Practitioners; 2006. 104 p. Electronic copies: Available in PDF from the [RACGP Web site](#) .
- National guide to a preventive health assessment for Aboriginal and Torres Strait Islander people. East Melbourne (Australia): Royal Australian College of General Practitioners; 2012. 100 p. Electronic copies: Available in PDF from the [RACGP Web site](#) .

Patient Resources

None available

NGC Status

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